

Draft CHESAPEAKE BAY TMDL

**Restoring Virginia's waterways
and Chesapeake Bay**

**Public Meeting
Annandale, Virginia
October 5, 2010**

www.epa.gov/chesapeakebaytmdl

Today's Agenda

➤ **EPA presents draft TMDL**

- Rich Batiuk, Chesapeake Bay Program Associate Director for Science
- Bob Koroncai, Chesapeake Bay TMDL Manager
- Jeff Corbin, Senior Advisor to Regional Administrator

➤ **Virginia presents WIP**

- Anthony Moore, Assistant Secretary for Chesapeake Bay Restoration

➤ **Question & Answer**

➤ **More information**

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First...The Bottom Line

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Lack of progress triggered TMDL



Lack of progress triggered TMDL



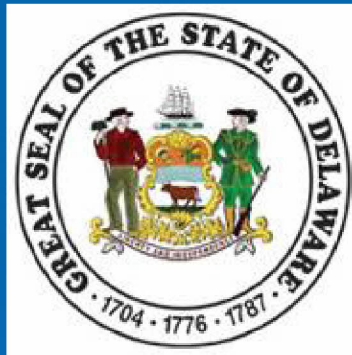
TMDL is a “pollution diet”



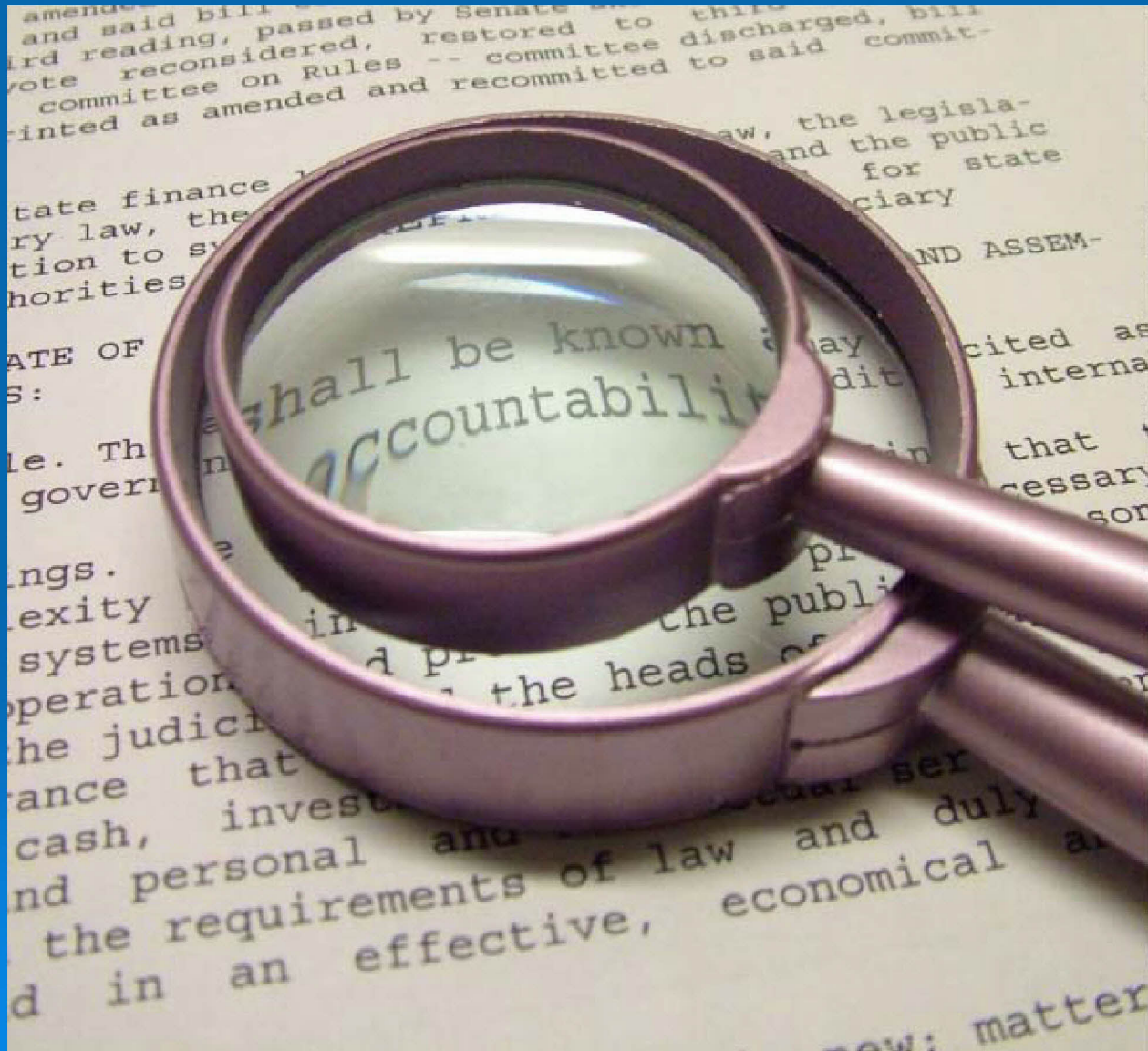
For your **streams, creeks and rivers**



Blend of state actions and federal measures



Accountability for results



Task **not easy** but essential



What is a TMDL?

And Why Does it Matter?

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Clean Water Act requires TMDL for waters that don't meet state standards



TMDL = Total Maximum Daily Load

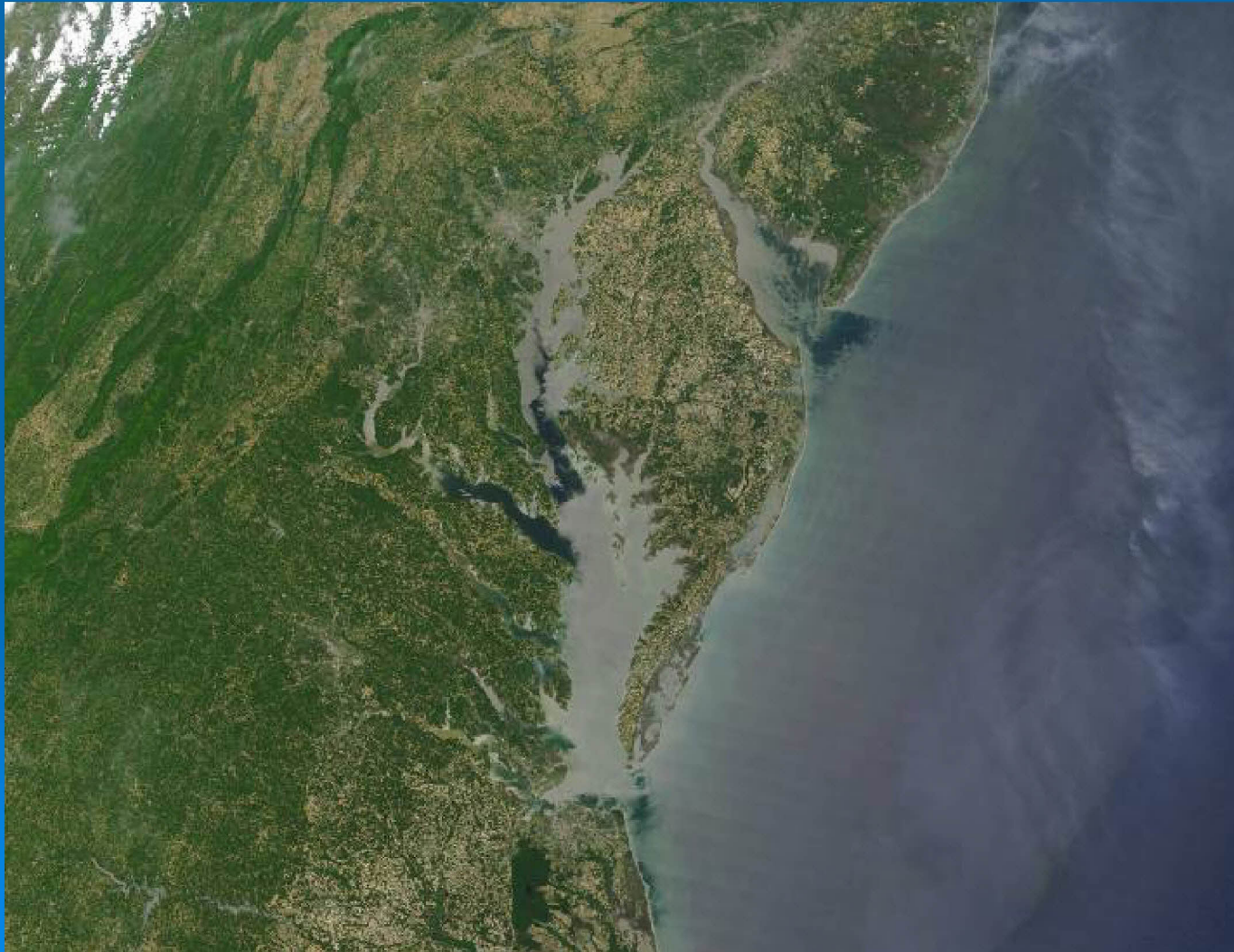
Defines amount of pollution a water body can handle and be healthy



Bay and tributaries are **polluted**
by nitrogen, phosphorus, sediment



**Rivers, streams, & creeks
contribute to Bay, so included in TMDL**





Annandale

A map of the Potomac River region in Virginia and Maryland. A red dashed line traces a route from Washington, D.C. (near Arlington and Alexandria) south along the river, passing through Mount Vernon, Waldorf, Mechanicsville, and ending near the Chesapeake Bay. The map shows various counties including Prince George's, Prince William, Stafford, Charles, King George, Saint Mary's, Calvert, and Westmoreland. Major highways like I-495, I-260, I-228, I-301, I-235, and I-95 are marked. Other locations include Chantilly, Centerville, Manassas, Springfield, West Springfield, Lake Ridge, Dale City, Woodbridge, Stafford, Hartwood, Fort A.P. Hill Military Reservation, and Quantico Marine Corps Base. A red circle with a yellow drop icon is located near Annandale.

Which way to the Bay???

Legal obligation to get it done

**Clean Water Act, Chesapeake 2000,
consent decrees, settlement**



Part of strategy to meet a Presidential Executive Order



Clean water matters to **your community**



Clean water matters to **your community**



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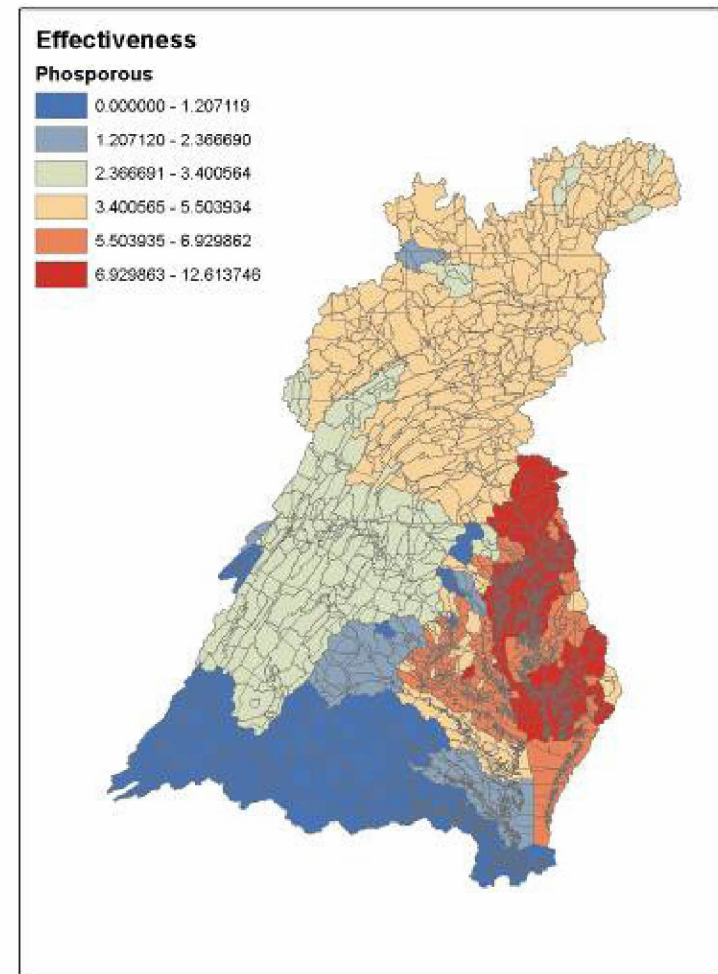
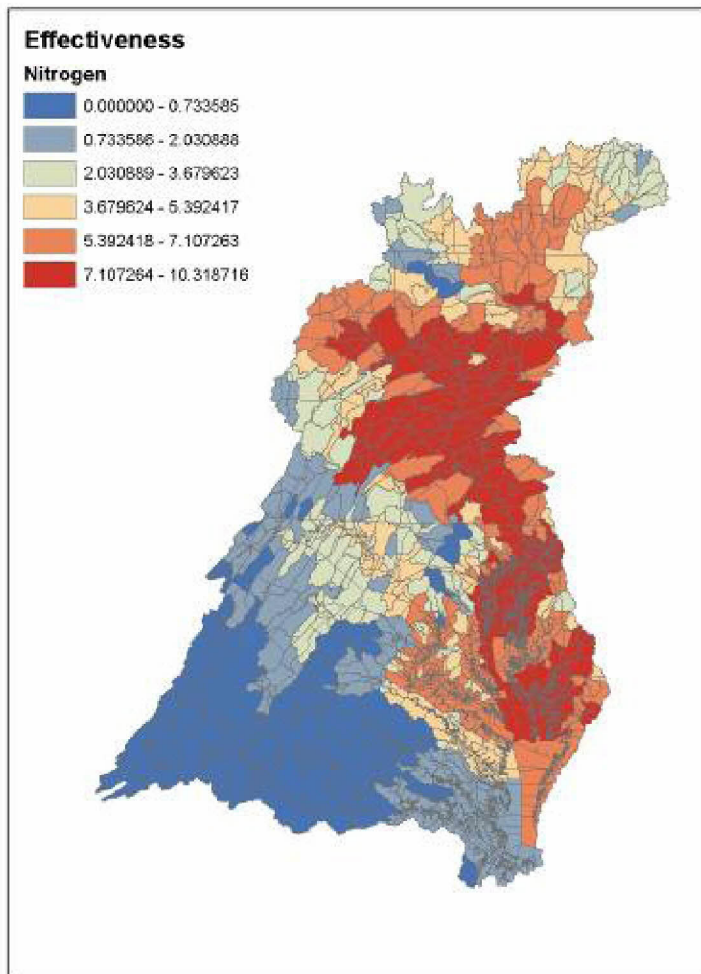
Clean water matters to **your community**



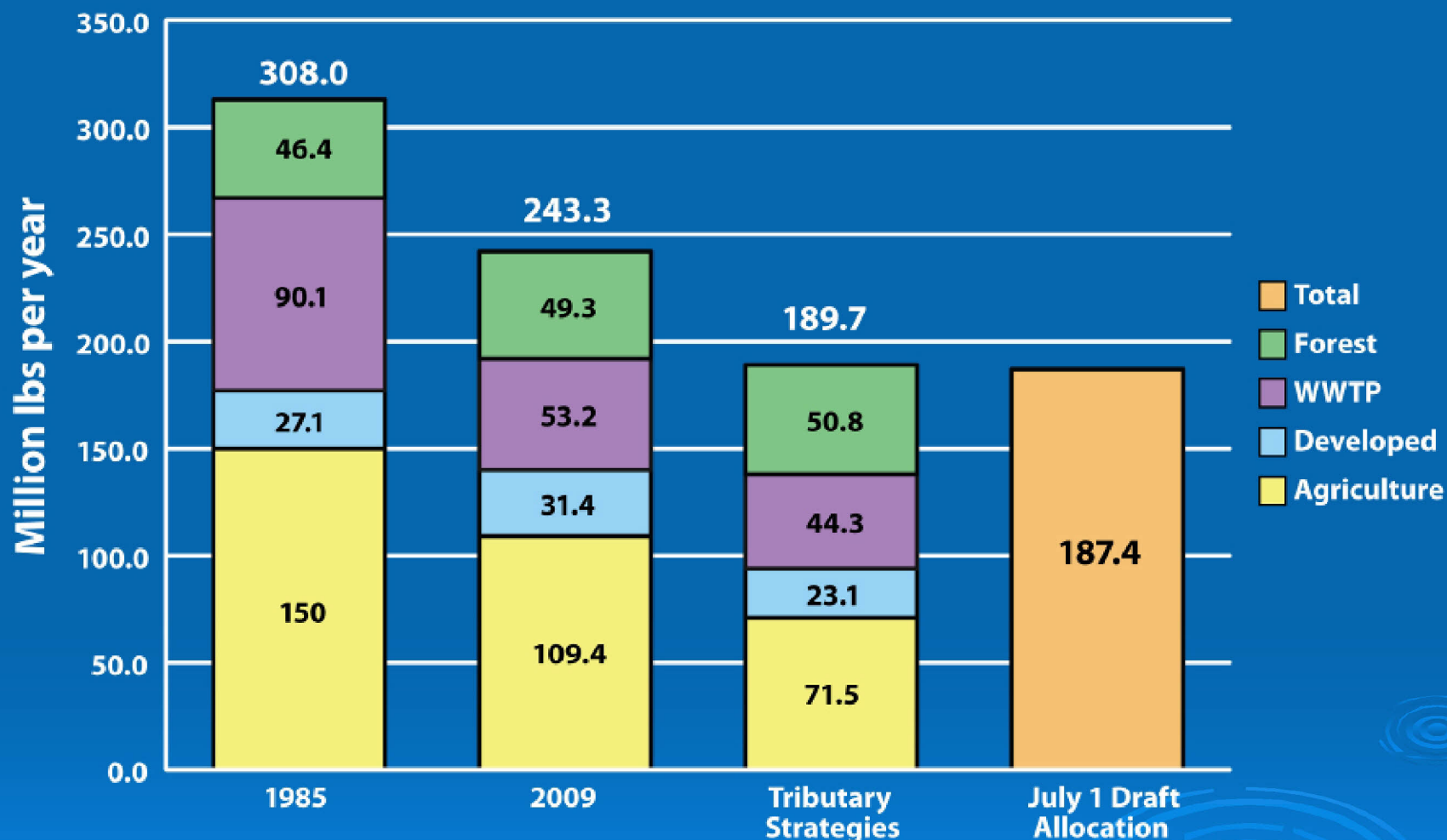
Setting the Pollution Diet

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Impact of Pollution



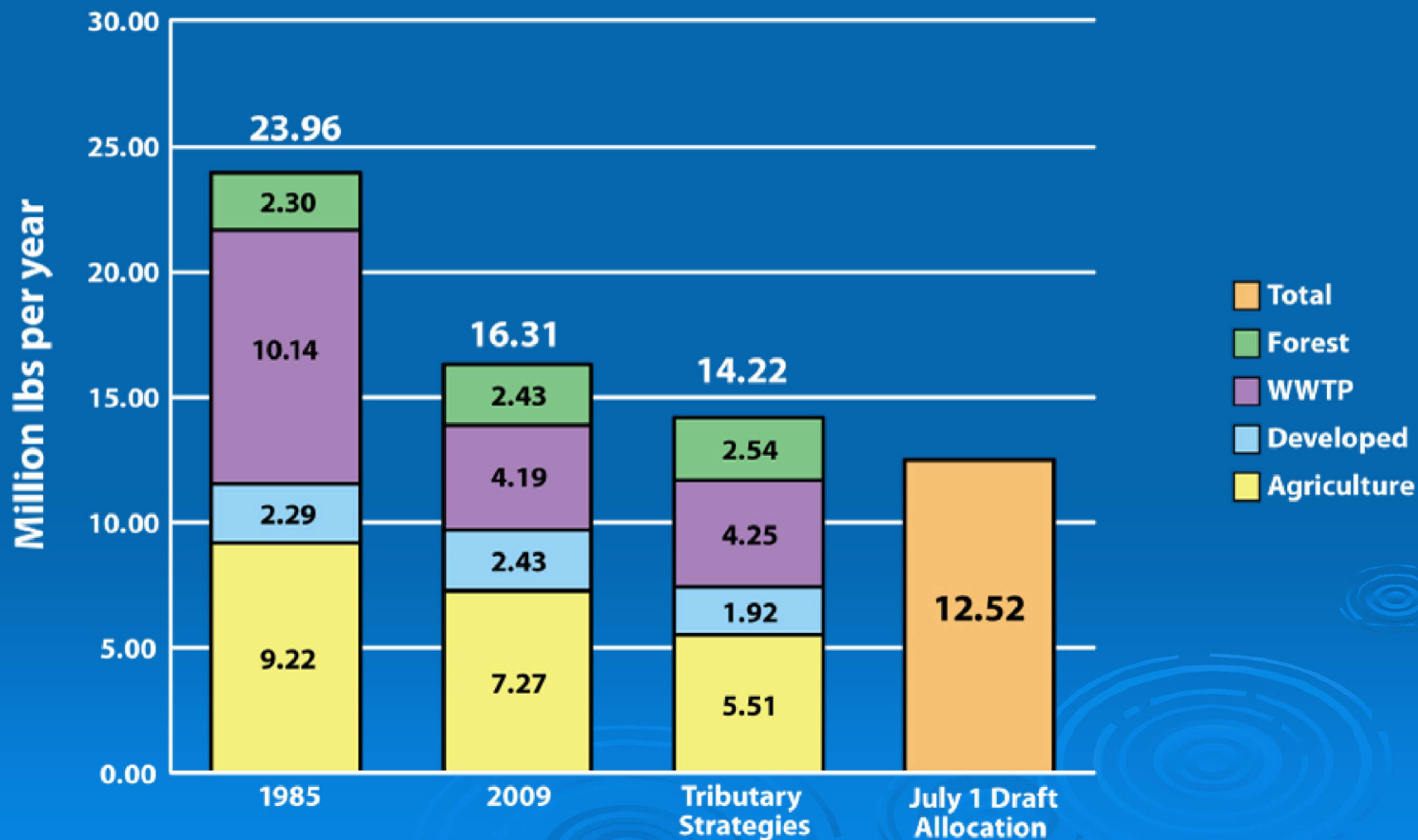
Nitrogen Loads by Sector and Scenario—CBP Watershed Model P5.3



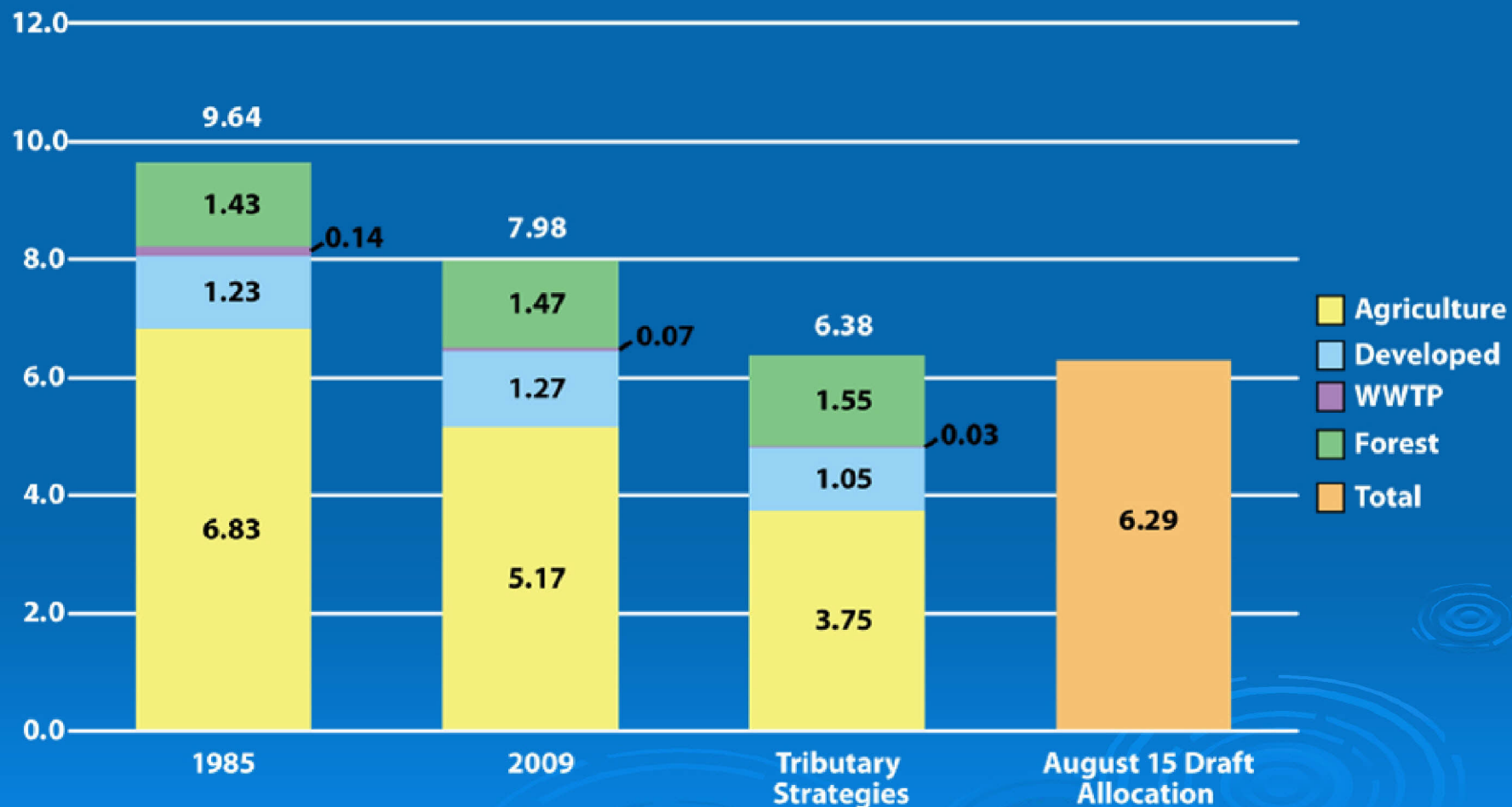
Draft allocation for atmospheric deposition is 15.7 million pounds, which will be achieved by federal air regulations through 2020.

Setting the Diet

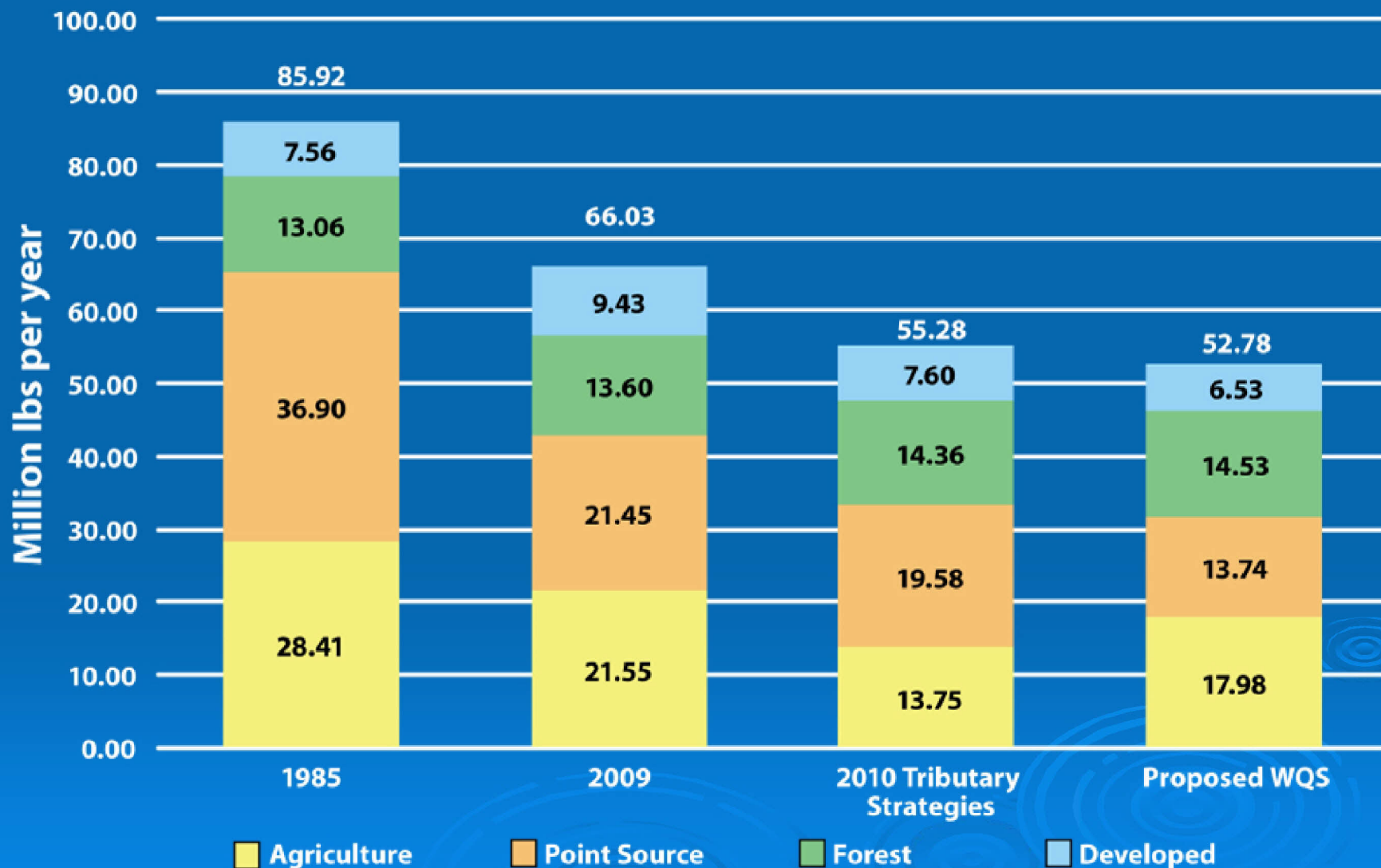
Phosphorus Loads by Sector and Scenario—CBP Watershed Model P5.3



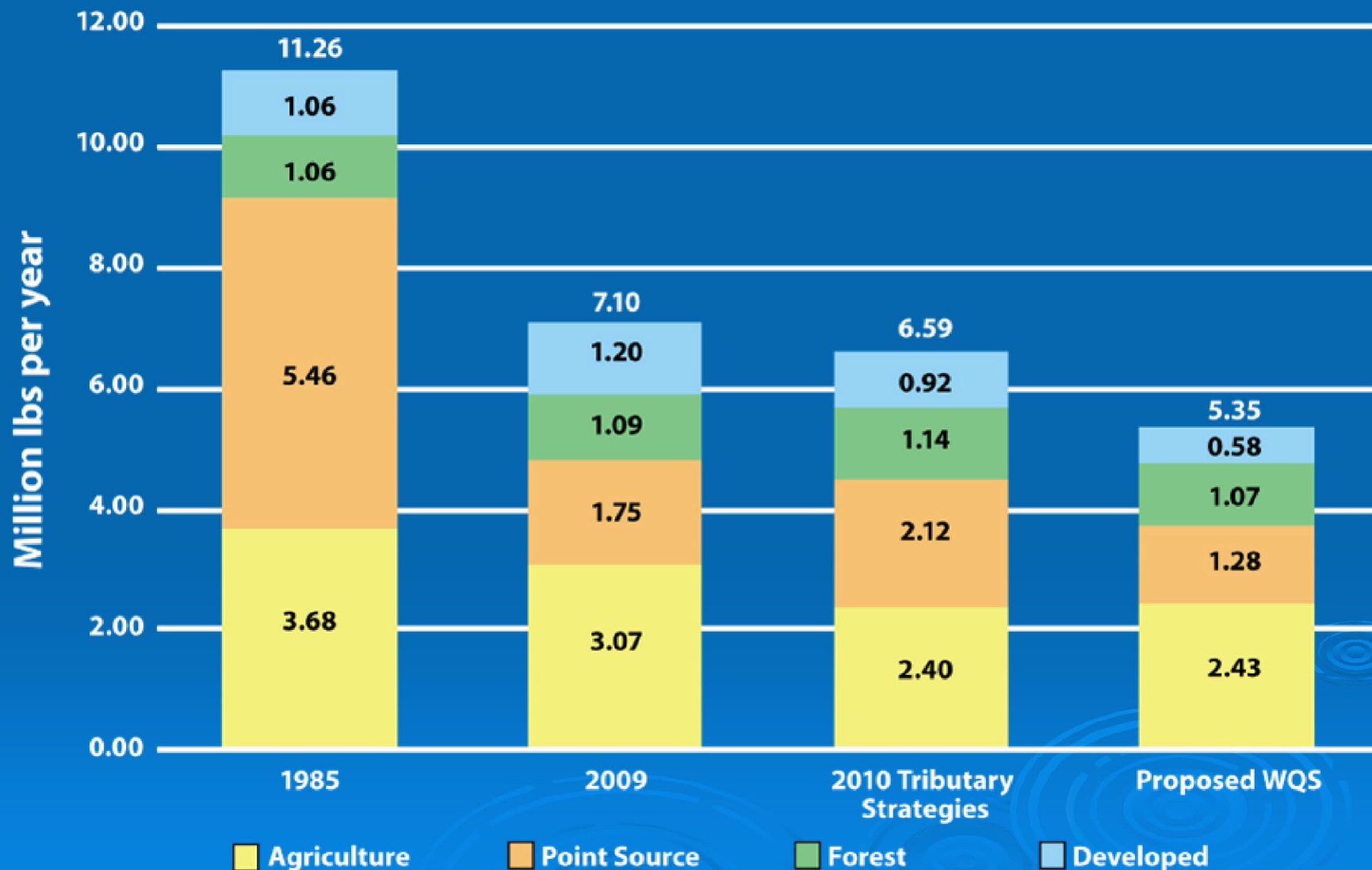
Model Simulated Sediment Loads by Scenario Compared with the Draft Sediment Allocations (billions of pounds per year as TSS)



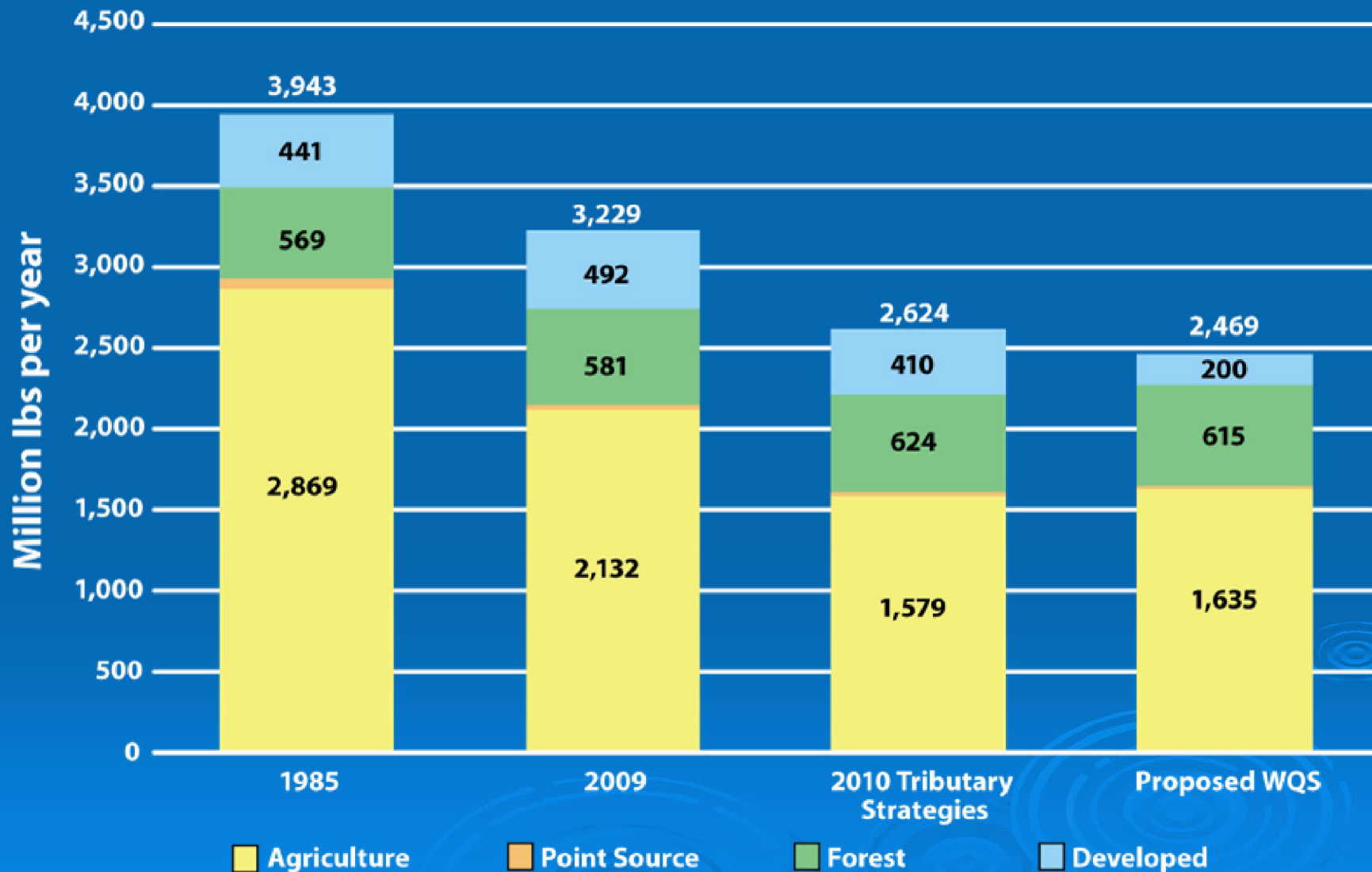
VA Nitrogen Loads by Sector and Scenario—CBP Watershed Model P5.3



VA Phosphorus Loads by Sector and Scenario—CBP Watershed Model P5.3



VA Sediment Loads by Sector and Scenario—CBP Watershed Model P5.3



Pollution Diet by State

Jurisdiction

- Delaware
- District of Columbia
- Maryland
- New York
- Pennsylvania
- Virginia
- West Virginia
- State Boundary
- Chesapeake Bay
- Chesapeake Bay Watershed



Note: There is also an Atmospheric Deposition Allocation of 15.70 million pounds/year.

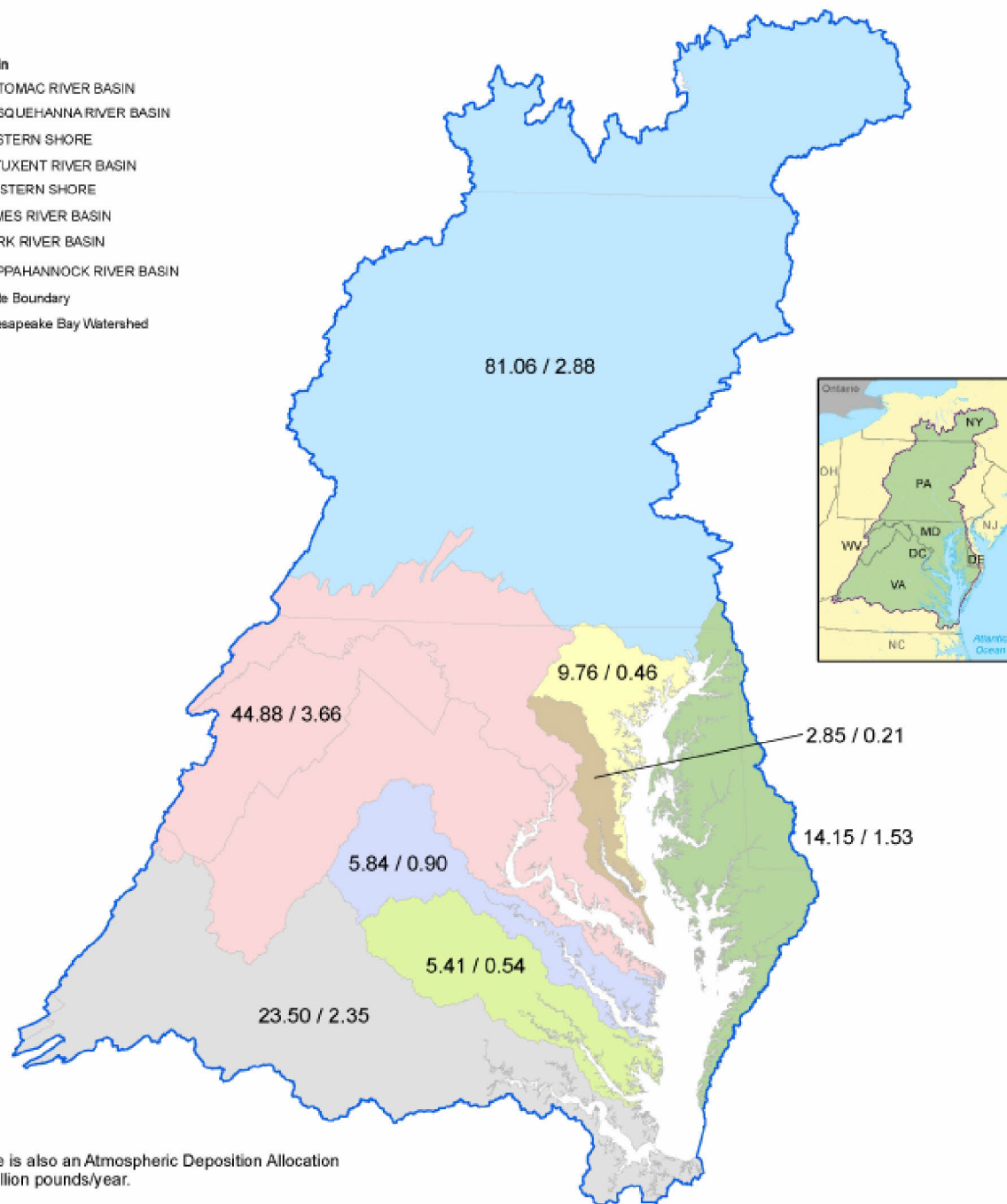
Pollution Diet by River

Major Basin

- POTOMAC RIVER BASIN
- SUSQUEHANNA RIVER BASIN
- EASTERN SHORE
- PATUXENT RIVER BASIN
- WESTERN SHORE
- JAMES RIVER BASIN
- YORK RIVER BASIN
- RAPPAHANNOCK RIVER BASIN

----- State Boundary

Chesapeake Bay Watershed



Note: There is also an Atmospheric Deposition Allocation of 15.70 million pounds/year.

TMDL Goals

2 year milestones

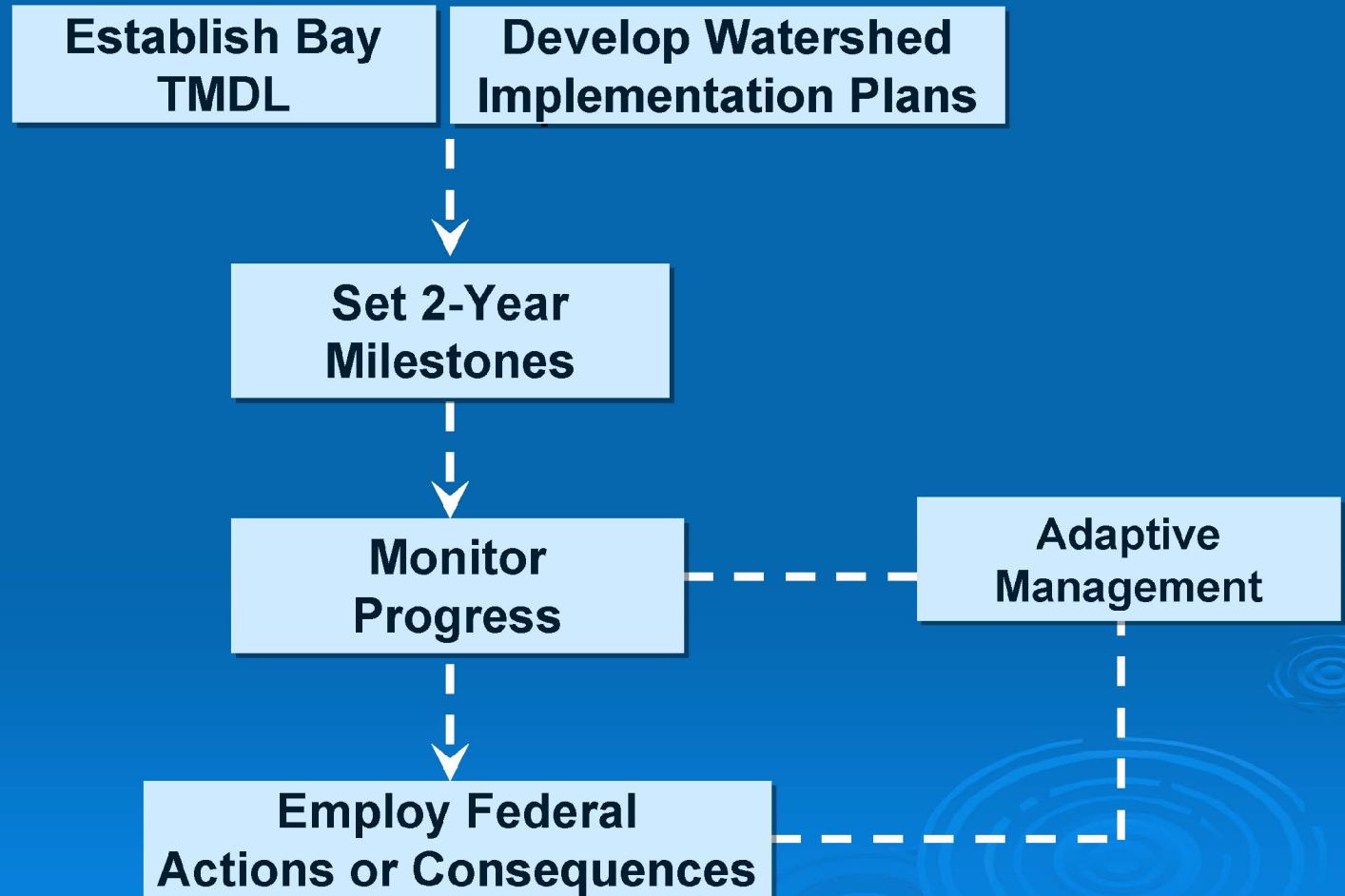
60 percent by 2017

100 percent by 2025

Local in 2011



Accountability for Results



Meeting the Pollution Diet

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Watershed Implementation Plan

**The how, when and where
of attaining the TMDL diet**

Overall Draft WIP Evaluation

- 7 jurisdictions provided Draft WIPs in early September
- WIPs must:
 - achieve pollution targets
 - provide reasonable assurance

Do WIPs meet the allocations?

Jurisdiction	Nitrogen	Phosphorus	Sediment
DC			
DE			
MD			
NY			
PA			
VA			
WV			

Draft Virginia WIP Evaluation

- Did not meet nitrogen (6 percent **over**)
- Did not meet phosphorus (7 percent **over**)
- Met sediment (12 percent **under**)

Overall Draft WIP Evaluation

None of the WIPs provided adequate assurance

- Inadequate strategy for filling program gaps
- Limited enforceability/accountability
- Few dates for key actions

Federal Backstops

- All jurisdictions require some level of backstop to:
 - Meet the pollution allocations
 - Provide a high level of assurance
- Backstop allocations focus on federal authority
 - Additional reductions from regulated point sources (wastewater treatment plants, CAFO, MS4s)
 - Finer scale allocations for headwater states

Federal Backstops

➤ Backstop allocation adjustments

- **Minor** - adjust load allocations to equal targets
- **Moderate** -
 - Stronger CAFO/MS4 requirements
 - Significant WWTPs: N @ 4 mg/l, P @ 0.3 mg/l
- **High Backstop** –
 - Stronger CAFO/MS4 requirements
 - Significant WWTPs: N @ 3 mg/l, P @ 0.1 mg/l

Backstops by Jurisdiction

- Maryland, DC – Minor Backstop
- Virginia – Moderate Backstop
- Delaware, Pennsylvania, New York and West Virginia – High Backstop
- Headwater States (PA, NY, WV)
 - EPA assigning finer scale wasteload and load allocations

Draft Virginia WIP Evaluation

For Virginia: **moderate backstop**

- Proposes nutrient reductions through expanded Nutrient Credit Exchange, but key deficiencies in this strategy exist
- Does not include legislative and regulatory changes that would support high implementation rates
- Does not meet nitrogen and phosphorus allocations in James River

Draft VA WIP Evaluation

For Virginia: **moderate backstop**

- Wastewater facilities: 4 mg/L TN and .3 mg/L TP and design flow
- MS4s: 50% of urban MS4 lands meet aggressive performance standard through retrofit/ redevelopment; 50% of unregulated land treated as regulated
- Construction: Erosion and sediment control on all lands subject to Construction General Permit
- CAFO production areas: Waste management, barnyard runoff control, mortality composting. Precision feed management for all animals. Same standards apply to AFOs not subject to CAFO permits EXCEPT no feed management on dairies; designation as necessary
- Additional adjustments to agriculture nonpoint sources as necessary to exactly nutrient and sediment allocations

In Summary

- Hybrid TMDL is blend of jurisdiction WIPs and EPA backstop allocations
- Final WIPs need to address deficiencies
- EPA prefers to use jurisdiction WIPs and not backstop in final TMDL

Opportunities for Improvement

- Jurisdictions can enhance their WIP submissions by the November 29 deadline
 - EPA will engage jurisdictions in discussions
 - EPA will evaluate the final WIPs
 - Final TMDL will be informed by final WIPs

Next Steps

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Next Steps

- Hold 18 public meetings in six states, D.C.
- Public comment period until November 8
- States, D.C. submit final WIPs on November 29
- TMDL will be established by December 31

Submit Your Comments

- Public comment period until **November 8**
 - **Electronically**, visit:
www.regulations.gov
Docket ID No. EPA-R03-OW-2010-0736
 - **In writing**, mail to:
Water Docket, EPA, Mailcode: 2822T
1200 Pennsylvania Ave., NW.,
Washington, D.C., 20460.
 - **By hand**, drop off from 8:30 a.m. - 4:30 p.m.:
EPA Docket Center Public Reading Room,
EPA Headquarters West, Room 3340,
1301 Constitution Ave., NW, Washington, D.C.



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